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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/726,341

12/03/2003

Philip C. Georgeau

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EXAMINER

CHAPMAN, JEANETTE E

ART UNIT

PAPER NUMBER

3635

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/726,341

Applicant(s)

GEORGEAU ET AL.

Examiner

Chapman E. Jeanette

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable (4996812) in view of Graves (4141187). Venable discloses a roof structure for covering a roof substrate comprising:

- A roof substrate 10 having an upper surface
- A waterproof membrane of EPDM rubber 18 having an upper side and a layer of fleece material 22 disposed on the lower side of the membrane
- A polymer adhesive 15 disposed on the lower side
- The adhesive is disposed within the fleece material and contacts the upper surface of the roof substrate and thereby bonds the membrane to the roof substrate capable of defining a portion of a low slope roof of a building structure define a portion; see figure 3
- A metal decking
- A layer of insulation 14 on the deck 12 forming the roof substrate
- A fluted steel deck below the foam insulation

Venable lacks the non-volatile polyester based adhesive. Graves discloses many types of adhesives to use in roof surfacing, one of which includes a non-volatile

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gc <sup>ther</sup> polyester based adhesive. The presence of water activates the curing agent, hence moisture cured adhesive. The parallel beads of adhesive has been considered a matter of choice having no criticality on the function or significance of the structure. Graves also discloses many different types of polyether based adhesives. Graves does not specifically disclose the adhesive including a silyl-terminated polymer and an alyalkylen polymer having at least one reactive silyl group at each end of the polymer molecule. One of ordinary skill in the art using any adhesives with the desired properties commensurate with the intended function and purpose of the roof structure

In view of the above, it would have been obvious to employ the adhesive of non-volatile polyester based type in order to provide a polymeric adhesive that is capable of providing a water impermeable polymeric layer upon curing.

Claims 5-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable (4996812) in view of Graves (4141187) and further in view of Van Wagoner (VW). VW discloses a sloping roof, figure 3, supported at least in part by the walls 36/24 of the building 10 and a roof substrate 46. VW also discloses a membrane 48 of EPDM rubber. In view of the above, it would have been obvious to apply the structure of Venable to a variety of roof substrates and to use the membrane material to construct thermally efficient protected membrane as taught by the secondary reference.

The thickness of the membrane and the fleece or matting have been considered a matter of choice. Further, the measurement values for the bond strength and the viscosity of the adhesive are also a matter of choice. One of ordinary skill in the art

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would have appreciated making the fleece/membrane, the bond strength and the viscosity of any measurement values suitable for the intended use function and purpose of the roof structure. The recited measurement values are very much within the scope of the invention to Venable. Further the significance and relevancy of the specific values lacks criticality, significance and relevancy to the overall claimed/disclosed invention. Finding the optimal values providing the intended function of the structure requires mere routine experimentation..

Graves discloses that similar roof surfacing materials can be applied to many different building structures. Fiberglass reinforced gypsum board is common in the art of building material. One of ordinary skill in the art would have appreciated applying the roofing system of any building structure in need of a water impermeable, durable covering for sidewalks, patios, terraces, shopping malls, entranceways, driveways, bathroom, kitchen, swimming pools, decks, recreation rooms, parking lots, bridges and roads.

It is clear that if one used the moisture cured adhesive to bond the membrane to the foam substrate then one would also use the adhesive to bond the foam to the metal decking to preserve the integrity of the roof deck.

Claim 16 is allowable over the prior art of record.

### ***Response to Arguments***


Applicant's arguments with respect to claims 1-15 and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chapman E. Jeanette whose telephone number is 571-272-6841. The examiner can normally be reached on Mon.-thursday, 8:30-6:00, every fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Friedman Carl can be reached on 571-272-6842. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
JEANETTE CHAPMAN  
PRIMARY EXAMINER  
ART UNIT 3635

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